



State of Utah

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TECHNICAL FIELD VISIT

Date : May 27, 1999
DOGM Staff: Robert Davidson and Sharon Falvey
RE: J.B. King Mine, Western States Minerals, ACT/015/002, File #2, Emery County, Utah

Purpose:

Compare RUSLE "K" values from drastically disturbed soils on-site with published Natural Resource Conservation Services' "K" values.

Background:

Many existing mine plans are using "K" factors from insitu soils to make an erosion loss estimate for the reclamation phase. Often the soils replaced are manipulated and physically different from insitu soils. Changes in organic matter content, or organic matter that is actually coal waste, does not provide the same structure. The result is a potential to have a soil erosivity or "K" value that differs from the insitu soils.

The JBK minesite is nearing bond release. The soils at this site are believed to differ from the published "K" values for the adjacent area. It is convenient to obtain preliminary samples at this site to get an idea of some K factors that may exist in Utah's reclaimed sites.

Observations:

Three surface soil samples were collected from the site at three separate locations. It is not the intention of this study to obtain statistically valid samples across the entire site, but simply compare several randomly collected samples to published values in the NRCS literature.

- Sample #1 - Refuse pile, new pocked surface at mid-slope, west southwest aspect.
- Sample #2 - Refuse pile, old non-pocked surface at mid-slope, west northwest aspect.
- Sample #3 - Reclaimed area directly east of weather station, northwest west aspect

Soil samples consisted of one spade, approximately ½ gallon size. Soil field bulk density were determined by measuring the volume of the excavated hole and weighing the soil sample. The samples were placed in heavy duty zip lock bags.

Recommendations/Conclusions:

- "K" factor determination will require laboratory analyses for the following:
 - % sand, % silt, and % clay for texture
 - % very fine sand
 - % organic matter

Page 2
Field Report
November 25, 1998

% moisture
Permeability

Signature:  on June 2, 1999
Robert Davidson, Reclamation Specialist

Signature:  on June 2, 1999
Sharon Falvey, Reclamation Specialist

cc: E.M. (Buzz) Gerick, V. P. Operations, Western States Mineral Corp.
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